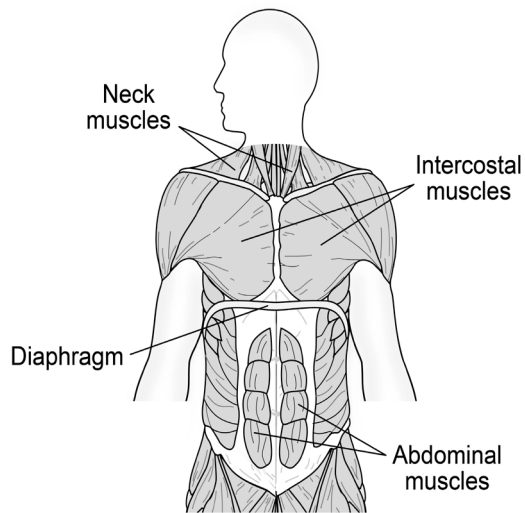


Breathing Issues with Neuromuscular Disease

When you have a neuromuscular disease, it is common to have breathing problems. This occurs because the muscles involved in breathing slowly weaken. These muscles include the diaphragm, the intercostals, and the abdominal muscles. See the picture and list below that explain where these muscles are and what they do.



Diaphragm

It is the muscle under the lungs. It moves down and shrinks when breathing in (inhaling). It relaxes and moves up when breathing out (exhaling).

Intercostal Muscles

These are muscles between and on top of the ribs. They are used when you breathe in and out.

Stomach (Abdominal) Muscles

These are the muscles below your diaphragm. You use them when coughing and when breathing hard. These muscles also help with forced breathing and coughing. Coughing helps to move mucus up and out of our lungs.

Effects of Weakening Muscles

As these muscles weaken, breathing becomes harder. Coughing and swallowing may be harder. The respiratory therapist will help you get equipment to make it easier to clear your lungs of mucus and help you breathe more easily.

Swallowing food and choking may also be a problem. Your swallow and speech specialist can teach you ways to get the food you need and reduce your choking risk. Even with this help, it is best to have family members and friends trained to do the Heimlich maneuver.

Heimlich Maneuver for Choking

A choking victim can't speak or breathe and needs your help right away. **Do not slap the victim's back.** This could make matters worse. Follow these steps to help a choking victim:

1. From behind, wrap your arms around the victim's waist.
2. Make a fist and place the thumb side of your fist against the person's belly, below the ribcage and above the navel.
3. Grasp your fist with your other hand and press into the upper belly with a quick upward thrust. **Do not** squeeze the ribcage.
4. Repeat until the object is coughed or spit out.



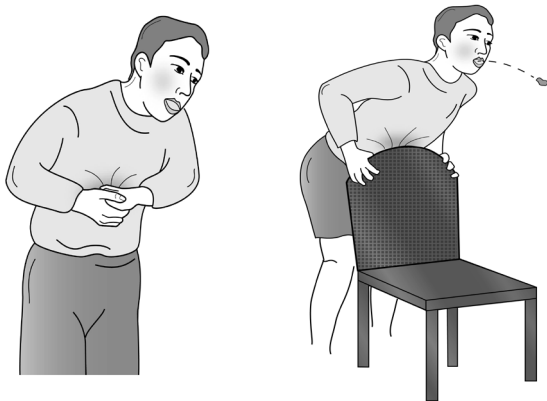
The Heimlich can also be done if the person is lying flat as shown in this picture.



Doing the Heimlich on Yourself

When you choke and you can't speak or breathe, you need help right away. Follow these steps to save yourself from choking.

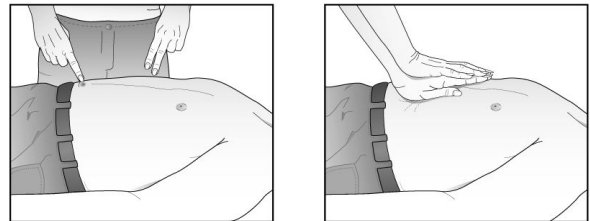
1. Make a fist and place the thumb side of your fist against your upper belly, below the ribcage and above the navel.
2. Grasp your fist with your other hand and press into your upper belly with a quick upward thrust.
3. Repeat until object is coughed or spit out.
4. You can also lean over a fixed horizontal object (table edge, chair, railing) and press your upper belly against the edge to produce a quick upward thrust.
5. Repeat until object is coughed or spit out.



Assisted Cough

In an assisted cough, another person pushes on your chest to help you cough. An assisted cough is done while you are sitting up in a bed or chair. Follow these steps for doing assisted cough:

1. Your caregiver places the heel of one hand just above your navel. The other hand is placed on top of the first hand.
2. You take a deep breath and hold it.
3. You cough while your caregiver pushes upward and under the rib cage, one time.
4. It may take practice to coordinate the cough with the motion.



Assisted Cough Machine

The assisted cough machine helps to clear mucus from your lungs. When you breathe in, the machine gives you air to help expand your lungs. When you breathe out, the machine pulls the air out of your lungs. This helps make your cough stronger and more effective.

Portable Suction Machine

When you have a neuromuscular disease, it is common to have weakness in tongue muscles. This makes it impossible to move mucus to spit out. A portable suction machine can be used at home to help remove mucus.

Noninvasive Ventilation

As your disease worsens, your breathing can become more difficult. Your doctor will order the use of a type of noninvasive or invasive ventilation. Noninvasive means nothing is inserted into your mouth or throat. This can be done with noninvasive positive-pressure ventilation (NIPPV). The NIPPV machine gives you a deeper breath through the mask, which makes your breathing more comfortable. A mask is placed over your nose and held in place by a head strap.

Tracheostomy

Sometimes, a more permanent type of ventilation is needed. Tracheostomy is an option that requires surgery to create a permanent opening in the neck to the windpipe (trachea). A tube into the opening lets air in.

A speaking valve can be ordered by your provider to keep the opening of the tube safely closed which allows you to speak and breathe normally.



When not using the speaking valve, you remove the valve so that air can go around the blockage in your throat and into your lungs while you sleep.

Your health care team may have given you this information as part of your care. If so, please use it and call if you have any questions. If this information was not given to you as part of your care, please check with your doctor. This is not medical advice. This is not to be used for diagnosis or treatment of any medical condition. Because each person's health needs are different, you should talk with your doctor or others on your health care team when using this information. If you have an emergency, please call 911. Copyright ©12/2021. University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Department of Nursing. HF6450.